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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Mogul et al.

Serial No.: 10/033,404

Group Art Unit: 2171

Filed: December 27, 2001

Examiner: To be assigned

For: **SYSTEM AND METHOD FOR ENERGY EFFICIENT DATA PREFETCHING** Attorney Docket No.: 9772-340-999

April 25, 2002

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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ A list of all patents, publications, applications, or other information submitted for consideration by the office.
- 1b. A legible copy of :
 - ☐ Each U.S. patent application publication and U.S. and foreign patent;
 - ☒ Each publication or that portion which caused it to be listed on the PTO-1449;
 - ☐ For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
 - ☒ all other information or portion which caused it to be listed on the PTO-1449.
- 1c. ☐ An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
- 1d. ☐ Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.

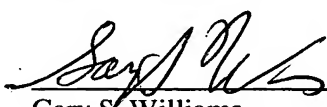
- 2. ☒ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):
 - ☐ Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);

- ☐ Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
 - ☒ Before the mailing of the first Office action on the merits;
 - ☐ Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.
3. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.
(Check either Item 3a or 3b)
- 3a. ☐ The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b. ☐ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:
- ☐ enclosed
 - ☐ to be charged to Pennie & Edmonds LLP Deposit Account No. 16-1150.
- (Item 3b to be checked if any reference known for more than 3 months)*
4. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.
- The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:
- ☐ enclosed.
 - ☐ to be charged to Pennie & Edmonds LLP Deposit Account No. 16-1150.
- The Certification Statement in Item 5 below is applicable.
5. ☐ Certification Statement *(applicable if Item 3a or Item 4 is checked)*
(Check either Item 5a or 5b)
- 5a. ☐ In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b. ☐ In accordance with 37 C.F.R. §1.97(e)(2), it is certified that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was known by any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
6. ☐ This application is a continuation application under 37 C.F.R. §1.60 or §1.53(b) or (d).
(Check appropriate Items 6a, 6b and/or 6c)
- 6a. ☐ A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.
- 6b. ☐ Copies of publications listed on Form PTO-1449 from prior application Serial No. __, filed on __, of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).

- 6c. ☐ Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. , filed on , and are provided herewith.
7. ☐ This is a Supplemental Information Disclosure Statement. (*Check either Item 7a or 7b*)
- 7a. ☐ This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on _____. A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on _____.
- 7b. ☐ This Supplemental Information Disclosure Statement is timely filed within one (1) month of a PTO-Notice under 37 C.F.R. §1.97(i).
8. ☐ In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:
(*Check Item 8a, 8b, or 8c*)
- 8a. ☐ satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.
- 8b. ☐ set forth in the application.
- 8c. ☐ enclosed as an attachment hereto.
9. ☒ The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Pennie & Edmonds LLP Deposit Account No. 16-1150.
10. ☒ No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully submitted,

Date April 25, 2002



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<p>PIPE LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) APR 15 2002 PATENT & TRADEMARK OFFICE</p> <p>PIPE APR 25 2002 PATENT & TRADEMARK OFFICE</p>					ATTY. DOCKET NO. 9772-340-999		APPLICATION NO. 10/033404	
					APPLICANT Mogul et al.			
					FILING DATE December 27, 2001		GROUP 2171	
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES NO	
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AA	Aditya et al., "Protocols For Low-Power," Project Report for Graduate Networks Class, Spring 2001, CMU.						
	AB	Bestavros, Azer, "Speculative Data Dissemination and Service," <u>In Proceedings of ICDE'96: The International Conference On Data Engineering</u> , New Orleans, Louisiana, March 1996.						
	AC	Cai et al., "Energy-Efficient Selective Cache Invalidation", <u>Wireless Networks (WINET)</u> , ACM/Baltzer, 1999, Vol. 5, No. 6, pp. 489-502						
	AD	Chandra et al., "Resource Management For Scalable Disconnected Access To Web Services," Department Of Computer Sciences The University of Texas at Austin.						
	AE	Douglass et al., "Adaptive Disk Spin-down Policies for Mobile Computers," <u>Computing Systems</u> , 8(4):381-413, Fall 1995.						
	AF	Feeney et al., "Investigating The Energy Consumption Of An IEEE 802.11 Network Interface," <u>SICS Technical Report T99/11</u> , pp 1-19, December 1999.						
	AG	Helmbold et al., "A dynamic disk spin-down technique for mobile computing," <u>In Proceedings of the Second Annual International Conference on Mobile Computing and Networking</u> , pages 130-142, White Plains, NY, November 1996.						
	AH	http://www.10.org/cdrom/papers/477/index.html , "N for the Price of 1: Bundling Web Objects For More Efficient Content Delivery", Accessed on 3/26/02, pp 1-13.						
	AI	Imielinski, Tomasz, "Energy Efficient Data Filtering And Communication In Mobile Wireless Computing," Department of Computer Science, Rutgers University, New Brunswick, NJ, http://www.usenix.org/publications/libra...eedings/mob95/full_papers/imieliński.txt , Accessed on 3/26/02, pp 1-13.						
	AJ	Jedrzycki et al., "Optimal Channel Assignment Strategies For Forced Channel Hopping In CDPD Systems," <u>Mobile Networks And Applications</u> 5(2000), pp 5-16.						
	AK	Kravets et al., "Power Management Techniques For Mobile Communication," http://www-sal.cs.uiuc.edu/~rhk/papers/html/power/power.html , Accessed on 3/26/02 pp1-20.						
	AL	Kroeger et al., "Exploring the Bounds of Web Latency Reduction from Caching and Prefetching. In Proc." <u>Symposium on Internet Technologies and Systems</u> , pages 13-22. USENIX, Monterey, CA, December, 1997.						
	AM	Lebeck et al., "Power Aware Page Allocation," Department Of Computer Science, Duke University, Durham North Carolina 27708-0129, <u>Report CS-2000-08</u> , pp1-22.						
	AN	Lorch et al., "Software Strategies For Portable Energy Management," <u>IEEE Personal Communications Magazine</u> , Vol. 5, No. 3, pp 60-73, June 1998.						

	AO	Pitkow et al., "Mining Longest Repeating Subsequences To Predict World Wide Web Surfing," <u>Proceedings Of USITS'99: The 2nd USENIX Symposium On Internet Technologies & Systems</u> , Boulder Colorado, USA, October 11-14, 1999, pp1-12
	AP	Singh et al., "Power-Aware Routing In Mobile Ad-Hoc Networks," <u>Proceeding of the Fourth Annual ACM/IEEE International Conference On Mobile Computing And Networking</u> , pp 181-190, 1998.
	AQ	Stemm et al., "Measuring And Reducing Energy Consumption Of Network Interfaces In Hand-Held Devices," <u>IEICE Trans. Commun.</u> , Vol. E80-B, No. 8, pp 1125-1131, August 1997.
	AR	Stemm et al., "Reducing Power Consumption of Network Interfaces in Hand-Held Devices," <u>In Proc 3rd International Workshop on Mobile Multimedia Communications (MoMuc-3)</u> , Princeton, NJ, USA, Sept 1996.
	AS	Tan, K.L. "Organization of Invalidation Reports for Energy-Efficient Cache Invalidation in Mobile Environments", <u>Mobile Networks and Applications (MONET)</u> , ACM/Baltzer, accepted for publication, 2000.
	AT	Touch et al., "An Experiment in Latency Reduction," <u>IEEE Infocom</u> , Toronto, June 1994, pp. 175-181.
	AU	Venkata et al., "Using Predictive Prefetching to Improve World Wide Web Latency," <u>Computer Communication Review</u> , 1996, 26(3):22-36.
	AV	Wu et al., "Energy-Efficient Caching for Wireless Mobile Computing IBM T. J. Watson Research Center," <u>Proceedings of the 1996 International Conference on Data Engineering (ICDE '96)</u>
EXAMINER		DATE CONSIDERED
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>		

